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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No.: PENN-0749

Inventors: Muzykantov et al.

Serial No.: 09/762,023

Filing Date: June 28, 2001

Examiner: M. DiBrino

Group Art Unit: 1644

Title: TARGETING AND PROLONGING ASSOCIATION OF  
DRUGS TO THE LUMINAL SURFACE OF THE  
PULMONARY VASCULAR ENDOTHELIAL CELLS

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On November 7, 2002

Jane Massey Licata  
Jane Massey Licata Registration No. 32,257

Assistant Commissioner for Patents  
Washington, DC 20231

Dear Sir:

**REPLY TO RESTRICTION REQUIREMENT**

This reply is to the Office Action mailed October 8, 2002  
setting a one (1) month statutory period for response. Please  
enter the following remarks into the record.

**REMARKS**

Claims 1-8 are pending in the instant application. The  
Examiner has made a restriction requirement under 35 U.S.C. §121  
and 35 U.S.C. §372 as follows:

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Group I, claims 1-4, drawn to a method for targeting and prolonging association of a selected drug to the luminal surface of pulmonary vascular endothelium (pev) comprising administering a drug and a non-internalizable antibody against an antigen on the luminal surface of the pev;

Group II, claims 5-8 drawn to a method of dissolution of fibrin clots or prevention of intravascular coagulation in the pulmonary vasculature comprising administering a fibrinolytic or anticoagulant in combination with a non-internalizable antibody against an antigen on the luminal surface of the pev.

The Examiner suggests that Groups I and II are not so linked as to form a single general inventive concept under PCT Rule 13.1, as under PCT Rule 13.2 they are suggested to lack the same or corresponding special technical features. It is suggested that claim 1 does not provide a technical feature that is distinguished over the prior art, as evidenced by Bowes et al. (1995), in view of Imaizumi and further in view of Mulligan et al. and Panes et al. Applicants respectfully traverse this restriction requirement.

PCT Rule 13.2 considers the special technical features to be shown for chemical alternatives when (A) all alternatives have a common property or activity and, (B)(1) a common structure is

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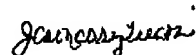
present, or (B) (2) all alternatives belong to an art recognized class of compounds in the art to which the invention pertains.

Bowes et al. (1995) teach use of a anti-ICAM-1 antibody in conjunction with tPA in an animal model of cerebral embolism stroke for study of the thrombolytic effects of tPA both alone and in the presence of the antibody. The results showed that the combination of the two did not work better than each compound alone in reducing neurological damage. Nowhere does this paper teach or suggest targeting the luminal surface of pulmonary vascular endothelium with a drug in combination with a non-internalizable antibody. Further, the secondary references fail to overcome the deficiencies in the teachings of Bowes et al., as none of the secondary references teach or suggest targeting the luminal surface of pulmonary vascular endothelium with a drug in combination with a non-internalizable antibody. Therefore, this combination of prior art fails to teach the limitations of the claims as filed. Accordingly, it is respectfully submitted that the instant claims do provide a special technical feature, and possess both inventive step and unity of invention. Reconsideration and withdrawal of this Restriction Requirement is therefore respectfully requested. However, in an earnest effort

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to facilitate prosecution of this application, Applicants hereby  
elect to prosecute Group II, claims 5-8, with traverse.

Respectfully submitted,



Jane Massey Licata  
Registration No. 32,257

Date: **November 7, 2002**

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## FACSIMILE COVER SHEET

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November 7, 2002

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**FILED: June 28, 2001**

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<b>AMENDMENT TRANSMITTAL LETTER (Small Entity)</b>			Docket No. <b>PENN-0749</b>		
Applicant(s): <b>Muzykantov et al.</b>					
Serial No. <b>09/762,023</b>	Filing Date <b>June 28, 2001</b>	Examiner <b>M. DiBrino</b>	Group Art Unit <b>1644</b>		
Invention: <b>TARGETING AND PROLONGING ASSOCIATION OF DRUGS TO THE LUMINAL SURFACE OF THE PULMONARY VASCULAR ENDOTHELIAL CELLS</b>					
<u>TO THE ASSISTANT COMMISSIONER FOR PATENTS:</u>					
Transmitted herewith is an amendment in the above-identified application.					
<input checked="" type="checkbox"/> Small Entity status of this application has been established under 37 CFR 1.27 by a verified statement previously submitted.					
<input type="checkbox"/> A verified statement to establish Small Entity status under 37 FR 1.27 is enclosed.					
The fee has been calculated and is transmitted as shown below.					
<b>CLAIMS AS AMENDED</b>					
	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST # PREV. PAID FOR	NUMBER EXTRA CLAIMS PRESENT	RATE	ADDITIONAL FEE
TOTAL CLAIMS	8 -	20 =	0 x	\$9.00	\$0.00
INDEP. CLAIMS	2 -	3 =	0 x	\$42.00	\$0.00
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>					\$0.00
<b>TOTAL ADDITIONAL FEE FOR THIS AMENDMENT</b>					<b>\$0.00</b>
<input checked="" type="checkbox"/> No additional fee is required for amendment.					
<input type="checkbox"/> Please charge Deposit Account No. _____ in the amount of _____ A duplicate copy of this sheet is enclosed.					
<input type="checkbox"/> A check in the amount of _____ to cover the filing fee is enclosed.					
<input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. <b>50-1619</b> A duplicate copy of this sheet is enclosed.					
<input checked="" type="checkbox"/> Any additional filing fees required under 37 C.F.R. 1.16.					
<input checked="" type="checkbox"/> Any patent application processing fees under 37 CFR 1.17.					
_____ <i>Jane Massey Licata</i> Signature			Dated: <b>November 7, 2002</b>		
<b>Jane Massey Licata</b> Reg. No. 32,257 Licata & Tyrrell P.C. 66 E. Main Street Marlton, NJ 08053 Tel: 856-810-1515 Fax: 856-810-1454					
<div style="border: 1px solid black; padding: 5px;"><p>I certify that this document and fee is being deposited on _____ with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.</p><p style="text-align: center;">_____ Signature of Person Mailing Correspondence</p><p style="text-align: center;">_____ Typed or Printed Name of Person Mailing Correspondence</p></div>					
CC:					

<b>CERTIFICATE OF TRANSMISSION BY FACSIMILE (37 CFR 1.8)</b> Applicant(s): Muzykantov et al.			Docket No. <b>PENN-0749</b>
Serial No. <b>09/762,023</b>	Filing Date <b>June 28, 2001</b>	Examiner <b>M. DiBrino</b>	Group Art Unit <b>1644</b>
Invention: <b>TARGETING AND PROLONGING ASSOCIATE OF DRUGS TO THE LUMINAL SURFACE OF THE PULMONARY VASCULAR ENDOTHELIAL CELLS</b>			
<p>I hereby certify that this _____ <b>Reply to Restriction Requirement</b> _____ (Identify type of correspondence)</p> <p>is being facsimile transmitted to the United States Patent and Trademark Office (Fax. No. <b>703-872-9306</b> )</p> <p>on <b>November 7, 2002</b> (Date)</p> <p style="text-align: right;">_____ <b>Jane Massey Licata</b> (Typed or Printed Name of Person Signing Certificate)</p> <p style="text-align: right;">_____ <i>Jane Massey Licata</i> (Signature)</p> <p style="text-align: center;">Note: Each paper must have its own certificate of mailing.</p>			